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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,550	09/28/1999	YOICHIRO SAKO	450100-02103	2896
20999	7590	12/20/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			ODOM, CURTIS B	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/407,550	Applicant(s) SAKO ET AL.	
	Examiner Curtis B. Odom	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15, 17-45, 48-60, 62-103, and 105-149 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 17-20, 22-45, 48-60, 62-103, and 105-149 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/28/2004 have been fully considered but they are not persuasive. The applicant states Jeffers et al. (U. S. Patent No. 4, 739, 510) does not disclose the second signal of claim 1 in the additional information, superimposing the second signal on the first signal to form the broadcast signal, and transmitting the additional information including the second signal on plural occasions. However, after reviewing claim 1, it is the understanding of the examiner that Jeffers et al. recites all the limitations of claim 1.

First, it is the understanding of the examiner that the additional information of Jeffers et al. is a bit stream which includes the header and the audio signal (column 16, lines 1-33). Therefore, the second signal (audio signal) is included in additional information including information necessary to acquire related data related to a broadcast signal. Next, Jeffers et al. discloses superimposing the second signal on the first signal to form the broadcast signal (column 9, lines 23-33), wherein the second signal (audio signal included in the additional information) is placed (superimposed) in certain intervals of the first signal (video broadcast signal). Jeffers et al. also discloses transmitting the additional information including the second signal on plural occasions (see Fig. 3), wherein the horizontal blanking intervals (HBI) containing the additional information (header and audio signal) are transmitted on plural occasions as shown in Fig. 3.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9, 11-13, 15, 17-20, 22-41, 43-45, 48-60, 62-70, 72-103, and 105-113, and 115-145 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeffers et al. (previously cited in Office Action 11/13/03).

Regarding claim 1, Jeffers et al. discloses a transmitting method for transmitting a predetermined broadcast signal together with predetermined additional information (column 5, lines 38-61), the method comprising:

constructing (column 5, lines 38-61 and column 16, lines 1-37) the additional information (data stream containing header and audio signal) in which acquiring information necessary to acquire related data to the broadcast signal, and a second signal is disposed, wherein the broadcast signal is a signal in which the second signal is superimposed on a first signal (column 5, lines 38-61 and column 9, lines 23-33), wherein the audio signal (second signal) is superimposed on a video signal (first signal); and

transmitting the broadcast signal, and transmitting the additional information, in which the acquiring information concerning the related data to this broadcast signal is disposed on plural occasions during the transmission of the broadcast signal (Fig. 3) during the transmission of the broadcast signal, (see Fig. 3), wherein the horizontal blanking intervals (HBI) containing

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the additional information (header and audio signal) are transmitted on plural occasions as shown in Fig. 3.

Regarding claim 2, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the additional information in which the acquiring information is disposed is transmitted periodically in the transmitting step (Fig. 3, and column 16, lines 1-45).

Regarding claim 3, Jeffers et al. discloses transmitting method as claimed in claim 1, further comprising an error detection/correction step for performing error detection/correction on the additional information (column 16, lines 39-58).

Regarding claim 4, Jeffers et al. discloses a transmitting method as claimed in claim 3, wherein the additional information is transmitted in units on which error detection/correction has been performed (column 16, lines 39-58), wherein packets are units.

Regarding claim 5, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises unique information uniquely assigned to the related data (column 5, lines 54-61).

Regarding claim 6, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises recognizing information useful for recognizing the content of the related data (column 6, line 44-column 7, line 30).

Regarding claim 7, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises access information used for accessing an access location where the related data is provided (column 6, line 44-column 7, line 30, decryption data).

Regarding claim 8, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the additional information in predetermined units comprises the acquiring information according to claim 1 when the additional information is transmitted in predetermined units (column 5, lines 38-61 and column 16, lines 1-58), wherein the horizontal blanking intervals are predetermined units.

Regarding claim 9, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the related data is video data or audio data when the broadcast signal is predetermined video data or audio data (column 5, lines 38-61).

Regarding claim 11, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein information (decryption data) useful for recognizing the content of the related data (encrypted data message) is disposed in the additional information in addition to the acquiring information in the constructing step (column 5, lines 54-61 and column 6, line 44-column 7, lines 30).

Regarding claim 12, Jeffers et al. discloses transmitting method as claimed in claim 1, wherein the related data is disposed in the additional information in addition to the acquiring information in the constructing step (column 5, lines 38-61 and column 6, line 44-column 7, line 30), wherein the header is related data and synchronization data is acquiring information

Regarding claim 13, Jeffers et al. discloses a transmitting method as claimed in claim 12, wherein the related data in which the additional information is disposed, is encoded (column 1, lines 35-47).

Regarding claim 15, which inherit the limitations of claim 1, Jeffers et al. discloses the first signal in a predetermined image or sound (video signal), and the second signal is a noise (audio signal) apart from the image or sound (column 16, lines 1-18).

Regarding claim 17, which inherits the limitations of claim 1, Jeffers et al. discloses the second signal disposed in the additional information is encoded (column 6, line 44-column 7, line 30), wherein the second signal is an encrypted (encoded) audio signal disposed in the additional information (column 16, lines 1-17, wherein the data stream containing the header and the audio signal is additional information).

Regarding claim 18, which inherits the limitations of claim 1, Jeffers et al. discloses the first signal is a first image or sound, the second signal is a second image or sound, and part of the first image or sound and the second image or sound overlay in time in the broadcast signal (column 1, line 59-column 2, line 5), wherein the combination of the signals using time division multiplexing could cause portions of the signals to overlap in time.

Regarding claim 19, which inherits the limitations of claim 18, Jeffers et al. discloses the end of the first image or sound and the beginning of the second image or sound overlap when the first image or sound is transmitted first and the second image or sound is transmitted later (column 1, line 59-column 2, line 5), wherein time division multiplexing techniques allow control the time at which signal are transmitted, making it possible for signals to overlap.

Regarding claim 20, which inherits the limitations of claim 18, Jeffers et al. discloses the time amplitude of the part where part of the first image or sound and the second image or sound overlap, is variable column 1, line 59-column 2, line 5), wherein time division multiplexing techniques allow the control of time amplitudes for transmission.

Regarding claim 22, which inherits the limitations of claim 18, Jeffers et al. discloses the additional information, in which the first image or sound or the second image or sound of the overlapping part is also disposed in addition to the acquiring information, is constructed in the constructing step (column 1, lines 1-17), wherein the second sound (audio signal) is disposed with the acquiring information (header) in the additional information (data stream).

Regarding claim 23, which inherits the limitations of claim 22, Jeffers et al. discloses the additional information in which the first image or sound or the second image or sound of the overlapping part is also disposed, is transmitted with the broadcast signal corresponding to either the first image or sound, or a broadcast signal corresponding the second image or sound, or to both, in the transmitting step (Fig. 3).

Regarding claim 24, which inherits the limitations of claim 22, Jeffers et al. discloses the first image or sound or the second image or sound in the overlapping part disposed in the addition information is encoded (column 1, lines 35-47).

Regarding claim 25, which inherits the limitations of claim 1, Jeffers et al. discloses a splitting step for splitting the related data into a first component and a second component, wherein the first component is transmitted as the broadcast signal in the transmitting step (column 16, lines 1-45), wherein the related data is split into sections of bits.

Regarding claim 26, which inherits the limitations of claim 25, Jeffers et al. discloses the second component is also disposed in the additional information in addition to the acquiring information, in the constructing step (column 16, lines 1-45), wherein a second component could be encryption data.

Regarding claim 27, which inherits the limitations of claim 26, Jeffers et al. discloses the second component disposed in the additional information is encoded (column 1, lines 35-47).

Regarding claim 28, which inherits the limitations of claim 25, Jeffers et al. discloses the first component is a low region or an upper bit of the video data or audio data and the second component is a high region component or a lower bit of the video data or audio data (column 16, lines 1-18), wherein the first and second components are among the 28 bits of the encrypted audio data.

Regarding claim 29, which inherits the limitations of claim 1, Jeffers et al. discloses the acquiring information comprises access information used for accessing a database in which the related information is stored (column 22, line 35-column 23, line 30).

Regarding claim 30, which inherits the limitations of claim 29, Jeffers et al. discloses the acquiring information comprises unique information assigned to the related data in addition to the access information (column 22, line 35-6-column 23, line 30), wherein the unique information could be any program related data (encryption data).

Regarding claim 31, which inherits the limitations of claim 30, Jeffers et al. discloses the unique information is an ISRC (column 22, line 35-column 23, line 30), wherein the unique information could be any program related data such as an ISRC.

Regarding claim 32, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein, when the broadcast signal is a broadcast program of songs, the additional information comprises the titles of the songs, names of singers singing the songs, names of companies manufacturing the recording media on which the songs are recorded, jacket photos for the recording media, photos of the singers, or a part of the songs recorded on the recording media in

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the constructing step (column 16, line 1-column 17, line 60), wherein the 28 bits of encrypted audio information is a broadcast program of songs and the program information header is the titles of the songs, names of singers singing the songs, names of companies manufacturing the recording media on which the songs are recorded, jacket photos for the recording media, photos of the singers, or a part of the songs recorded on the recording media.

Regarding claim 33, Jeffers et al. discloses the additional information comprises information for a visual or audio advertisement or publicity when the broadcast signal is a predetermined image or sound in the constructing step (column 16, line 1-column 17, line 60), wherein the program information header comprises information for a visual or audio advertisement or publicity.

Regarding claim 34, Jeffers et al. discloses a transmitting device for transmitting a predetermined broadcast signal together with predetermined additional information (Fig. 1, column 5, lines 38-61), the device comprising:

constructing means for constructing (column 5, lines 38-61 and column 16, lines 1-37) the additional information (data stream including header and audio signal) in which acquiring information necessary to acquire related data to the broadcast signal is disposed, wherein the broadcast signal is a signal in which a second signal is superimposed on a first signal (column 5, lines 38-61 and column 16, lines 1-37) and wherein the constructing means constructs the additional information by superimposing the second signal (audio signal) in addition to the acquiring information (header); and

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transmitting means for transmitting the broadcast signal, and transmitting the additional information, in which the acquiring information concerning the related data to this broadcast signal is disposed on plural occasions during the transmission of the broadcast signal (Fig. 3).

Regarding claims 35-41, 43-45, and 48-57, the claimed apparatus includes features corresponding to the above rejection of claims 2-7, 9, 11-13, 17, 18, and 22-29 which is applicable hereto.

Regarding claim 58, Jeffers et al discloses a receiving method for receiving a predetermined broadcast signal and predetermined additional information in which acquiring information necessary to acquire related data related to this broadcast signal is disposed, the method comprising:

receiving (column 22, line 35-column 23, line 48) the broadcast signal and additional information (data stream containing header and audio signal);

temporarily storing (column 22 lines 37-40) the received additional information, wherein the processing circuits are temporary storage; and

storing (column 22, lines 35-68) the acquiring information disposed in the temporarily stored additional information into a main storage when there is a predetermined input from an operation unit (column 14, lines 14-47), wherein the decoder memory is the main storage and the microcontroller is the operation unit.

Regarding claim 59, Jeffers et al. discloses a receiving method as claimed in claim 58, further comprising an error detection/correction step for performing error detection/correction on the additional information (column 16, lines 39-58).

Regarding claim 60, Jeffers et al discloses a receiving method as claimed in claim 58, further comprising a temporary storage step for temporarily storing the broadcast signal received in the receiving step (Fig. 2B, blocks 68, 70, 72, column 13, lines 14-50).

Regarding claim 62, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the storage contents are updated by newly received additional information on each occasion when new additional information is received in the temporary storage step (column 4, lines 16-58), wherein monitoring the next header and storing the control information of the next header updates the storage contents.

Regarding claim 63, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the additional information in which the acquiring information concerning the related data related to the broadcast signal is received on plural occasions while the broadcast signal is being transmitted (Fig. 3, column 16, lines 1-45).

Regarding claim 64, Jeffers et al discloses a receiving method as claimed in claim 63, wherein the additional information is transmitted periodically (Fig. 3, column 16, lines 1-45).

Regarding claim 65, Jeffers et al discloses a receiving method as claimed in claim 63, wherein the acquiring information, which is disposed in the additional information transmitted on plural occasions, is stored in the acquiring information storing step when the predetermined input occurs (column 4, lines 16-58).

Regarding claim 66, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the acquiring information comprises unique information uniquely assigned to the related data (column 4, lines 16-58, encryption data, sync data).

Regarding claim 67, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the acquiring information comprises recognizing information useful for recognizing the content of the related data (column 4, lines 16-58).

Regarding claim 68, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the acquiring information comprises access information used for accessing an access location where the related data is provided (column 6, line 44-column 7, line 30, decryption data).

Regarding claim 69, Jeffers et al discloses a receiving method as claimed in claim 58, further comprising an outputting step for outputting the acquiring information (column 4, lines 16-58, capturing sync information or outputting decrypted messages).

Regarding claim 70, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the related data is video data or audio data when the broadcast signal is predetermined video data or audio data (column 5, lines 38-61).

Regarding claim 72, Jeffers et al discloses a receiving method as claimed in claim 58, wherein information useful for recognizing the content of the related data is disposed in the additional information in addition to the acquiring information (column 5, lines 54-61 and column 6, line 44-column 7, lines 30).

Regarding claim 73, Jeffers et al discloses a receiving method as claimed in claim 72, further comprising an outputting step for outputting information (decryption data) useful for recognizing the content of the related data (column 4, lines 16-58).

Regarding claim 74, Jeffers et al discloses a receiving method as claimed in claim 58, wherein the related data is also disposed in the additional information in addition to the acquiring information (column 5, lines 38-61, audio encryption information, sync data).

Regarding claim 75, Jeffers et al discloses a receiving method as claimed in claim 74, further comprising a related data (control information) storing step for storing the related data disposed in the additional information when the predetermined input occurs (column 4, lines 16-58).

Regarding claim 76, Jeffers et al discloses a receiving method as claimed in claim 75, wherein the related data (control information) disposed in the additional information is encoded (column 1, lines 35-47).

Regarding claim 77, which inherits the limitations of claim 76, Jeffers et al. further discloses acquiring a decoding key for decoding the related data (control messages) based on the acquiring information (column 2, lines 18-34).

Regarding claim 78, which inherits the limitations of claim 77, Jeffers et al. further discloses decoding the related data based on the decoding key (column 2, lines 18-34).

Regarding claim 79, which inherits the limitations of claim 58, Jeffers et al. discloses acquiring related data stored in a database based on the acquiring information when the related data is stored in a predetermined database (column 22, line 35-column 23, line 30), wherein the storage unit is a database.

Regarding claim 80, which inherits the limitations of claim 79, Jeffers et al. discloses a decoding key for decoding the related data is also acquired in the acquiring step when the related data stored in the database is encoded (column 22, line 35-column 23, line 30).

Regarding claim 81, which inherits the limitations of claim 80, Jeffers et al. discloses decoding the related data based on the decoding key (column 22, line 35-column 23, line 30).

Regarding claim 82, which inherits the limitations of claim 58, Jeffers et al. discloses the broadcast signal comprises a second signal superimposed on a first signal (column 5, lines 38-61), wherein the audio signal (second signal) is superimposed on a video signal (first signal) or both the audio and video signal are superimposed on a carrier signal (modulation).

Regarding claim 83, which inherits the limitations of claim 82, Jeffers et al. discloses the second signal is also disposed in the additional information (column 16, lines 1-18), wherein the audio information is the second signal disposed with the additional information.

Regarding claim 84, which inherits the limitations of claim 83, Jeffers et al. discloses the second signal in the additional information is encoded (column 1, lines 35-47).

Regarding claim 85, which inherits the limitations of claim 84, Jeffers et al. discloses acquiring a decoding key for decoding the second signal (audio signal) based on the acquiring information (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 86, which inherits the limitations of claim 85, Jeffers et al. discloses decoding the second signal (audio signal) based on the decoding key (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 87, which inherits the limitations of claim 86, Jeffers et al. discloses generating the related data based on the broadcast signal and the second signal (column 5, lines 38-61), wherein the broadcast signal in the video signal and the second signal is the audio signal.

Regarding claim 88, which inherits the limitations of claim 82, Jeffers et al. discloses the first signal is a first image or sound, the second signal is a second image or sound, and part of the

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first image or sound and the second image or sound overlap in time in the broadcast signal (column 1, line 59-column 2, line 5), wherein the combination of the signals using time division multiplexing could cause portions of the signals to overlap in time.

Regarding claim 89, which inherits the limitations of claim 88, Jeffers et al. discloses the first image or sound or the second image or sound of the overlapping part is also disposed in the additional information (column 5, lines 38-51), wherein the second sound (audio signal) is disposed in the additional information with the acquiring information (header).

Regarding claim 90, which inherits the limitations of claim 89, Jeffers et al. discloses the first image or sound or the second image or sound of the overlapping part disposed in the additional information is encoded (column 1, lines 35-47).

Regarding claim 91, which inherits the limitations of claim 90, Jeffers et al. discloses acquiring a decoding key for decoding the first image or sound or the second image or sound of the overlapping part based on the acquiring information (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 92, which inherits the limitations of claim 91, Jeffers et al. discloses the first image or sound or the second image or sound of the overlapping part is decoded based on the decoding key (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 93, which inherits the limitations of claim 92, Jeffers et al. discloses generating the related data using the broadcast signal and the first image or sound or the second image or sound of the overlapping part (column 5, lines 38-61), wherein the broadcast signal is the video signal and the audio signal is the sound of the overlapping part.

Regarding claim 94, which inherits the limitations of claim 58, Jeffers et al. discloses a splitting step for splitting the related data into a first component and a second component, wherein the first component is transmitted as the broadcast signal (column 16, lines 1-45), wherein the related data is split into sections of bits.

Regarding claim 95, which inherits the limitations of claim 94, Jeffers et al. discloses the second component is also disposed in the additional information (column 16, lines 1-45), wherein a second component could be encryption data.

Regarding claim 96, which inherits the limitations of claim 95, Jeffers et al. discloses the second component disposed in the additional information is encoded (column 1, lines 35-47).

Regarding claim 97, which inherits the limitations of claim 96, Jeffers et al. discloses acquiring a decoding key for decoding the second component based on the acquiring information (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 98, which inherits the limitations of claim 97, Jeffers et al. further discloses decoding the second component based on the decoding key (column 6, line 44-column 7, line 4 and column 22, line 35-column 23, line 30).

Regarding claim 99, which inherits the limitations of claim 98, Jeffers et al. discloses generating the related data using the broadcast signal and the second signal (column 5, lines 38-61).

Regarding claim 100, which inherits the limitations of claim 94, Jeffers et al. discloses wherein the related data is video or audio data, the first component is a low region or an upper bit of the video data or audio data and the second component is a high region component or a lower

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bit of the video data or audio data (column 16, lines 1-18), wherein the first and second components are among the 28 bits of the encrypted audio data.

Regarding claims 101-103, 105-113, and 115-143, the claimed apparatus includes features corresponding to subject matter mentioned in the above rejection of claims 58-60, 62-70 and 72-100 which is applicable hereto.

Regarding claim 144, Jeffers et al. discloses a transfer method of a transfer system comprising a transmitting device (Fig. 1) for transmitting a predetermined broadcast signal and predetermined additional information, and a receiving device (Figs. 2A and 2B) for receiving the predetermined broadcast signal together and the predetermined additional information, wherein the transmitting comprises:

constructing (column 5, lines 38-61 and column 16, lines 1-37) the additional information (data stream containing header and audio signal) in which acquiring information necessary to acquire related data to the broadcast signal is disposed; and

transmitting the broadcast signal, and transmitting the additional information, in which the acquiring information concerning the related data to this broadcast signal is disposed on plural occasions during the transmission of the broadcast signal (Fig. 3) during the transmission of the broadcast signal; and

the receiving comprises:

receiving (column 22, line 35-column 23, line 48) the broadcast signal and additional information (header information);

temporarily storing (column 22 lines 37-40) the received additional information, wherein the processing circuits are temporary storage; and

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storing (column 22, lines 35-68) the acquiring information disposed in the additional information stored in a temporary storage means (processing circuits) into a main storage when there is a predetermined input from and operation unit (column 14, lines 14-47), wherein the decoder memory is the main storage and the microcontroller is the operation unit.

Regarding claim 145, the claimed device includes features corresponding to subject matter mentioned in the above rejection of claim 144 which is applicable hereto.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10, 42, 71, 114, and 146-149 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (previously cited in Office Action 11/13/03).

Regarding claims 10, 42, 71, and 114, Jeffers et al. discloses all the limitations of claims 10, 42, 71, and 114 (see rejection above) except the related data is a computer program when the broadcast signal is video data or audio data obtained by executing a predetermined computer program. However, it would have been obvious to one skilled in the art that if a computer program were needed to obtain the video or audio data, then the computer program would have to be transmitted along with the audio or video data. One skilled in the art at the time the invention was made would also have clearly recognized that the transmitting/receiving method

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Jeffers et al. could have been implemented into software (computer program). The implemented software would perform the same function of the hardware for less expense, greater adaptability, and greater flexibility. Therefore, it would have been obvious to have used the software in Jeffers et al. in order to reduce cost and improve the adaptability and flexibility of the communication.

Regarding claim 146, Jeffers et al. discloses a transmitting method comprising:

constructing (column 5, lines 38-61 and column 16, lines 1-37) predetermined additional information (data stream containing header and audio signal) in which acquiring information necessary to acquire related data to the broadcast signal is disposed,

transmitting the predetermined broadcast signal; and

transmitting the predetermined additional information on plural occasions during the transmission of the predetermined broadcast signal (Fig. 3) during the transmission of the broadcast signal,

Jeffers et al. does not disclose the related data is a computer program when the broadcast signal is video data or audio data obtained by executing a predetermined computer program.

However, it would have been obvious to one skilled in the art that if a computer program were needed to obtain the video or audio data, then the computer program would have to be transmitted along with the audio or video data. One skilled in the art at the time the invention was made would also have clearly recognized that the transmitting/receiving method Jeffers et al. could have been implemented into software (computer program). The implemented software would perform the same function of the hardware for less expense, greater adaptability, and

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greater flexibility. Therefore, it would have been obvious to have used the software in Jeffers et al. in order to reduce cost and improve the adaptability and flexibility of the communication.

Regarding claim 147, the claimed device includes features corresponding to subject matter mentioned in the above rejection of claim 146 which is applicable hereto.

Regarding claim 148, Jeffers et al. discloses a receiving method comprising:

receiving (column 22, line 35-column 23, line 48) a predetermined broadcast signal and predetermined additional information, the predetermined additional information including acquiring information necessary to acquire related data related to the broadcast; and

storing (column 22, lines 35-68) the acquiring information when there is a predetermined input,

Jeffers et al. does not disclose the related data is a computer program when the broadcast signal is video data or audio data obtained by executing a predetermined computer program. However, it would have been obvious to one skilled in the art that if a computer program were needed to obtain the video or audio data, then the computer program would have to be transmitted along with the audio or video data. One skilled in the art at the time the invention was made would also have clearly recognized that the transmitting/receiving method Jeffers et al. could have been implemented into software (computer program). The implemented software would perform the same function of the hardware for less expense, greater adaptability, and greater flexibility. Therefore, it would have been obvious to have used the software in Jeffers et al. in order to reduce cost and improve the adaptability and flexibility of the communication.

Regarding claim 149, the claimed device includes features corresponding to subject matter mentioned in the above rejection of claim 148 which is applicable hereto.

Allowable Subject Matter

6. Claims 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2634

Curtis Odom
December 11, 2004

A handwritten signature in black ink, appearing to read 'S. Chin', with a long horizontal flourish extending to the right.

STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600